

Tyne & Wear ITA - Metro Sub Committee

Meeting to be held in a Committee Room, Civic Centre, Newcastle upon Tyne on Wednesday 8 September 2010 at 10.00 am

Page

- 1. Apologies for absence
- 2. Declarations of Interest of Members or Officers

(If any Member has a personal/prejudicial interest please complete the appropriate form and hand this to the Democratic Services Officer before leaving the meeting. A blank form can be obtained from the DSO at the meeting).

Members are reminded to verbally declare their interest and the nature of it and, if prejudicial, leave where appropriate at the point of the meeting when the item is to be discussed

3. Quarterly Performance Data

1 - 18

4. Reviewing the Outputs of Project Orpheus

19 - 24

5. Date and Time of the Next Meeting





Tyne and Wear Integrated Transport Authority

Metro Sub-Committee

DATE: 8 September 2010

TITLE: QUARTERLY PERFORMANCE DATA

REPORT OF:

THE DIRECTOR OF RAIL AND INFRASTRUCTURE, NEXUS

Not confidential

District Implications: All Tyne & Wear

1. Summary / Purpose of Report

- 1.1 This is the first quarterly report submitted to the Metro Sub-Committee in accordance with the Terms of Reference agreed by the Integrated Transport Authority in May 2010.
- 2. Recommendations
- 2.1 That Metro Sub-Committee notes the progress reports attached.
- 3. Introduction / Background
- 3.1 Individual reports covering the first quarterly performance data are attached for each of the Metro Operating Concession, Nexus Rail and the Metro Asset Renewal Programme.
- For reasons of commercial confidentiality, detailed reporting of Metro income is not possible but it can be reported that performance to date is broadly in line with expectations and in line with the funding arrangements agreed with the Department for Transport as per the funding award dated 3rd February 2010.
- 3.3 Members may be aware that on 7th April 2010, the Railway Inspectorate division of the Office of Rail Regulation served four Improvement Notices upon Nexus. These Improvement Notices were concerned with the condition and maintenance of some of the electrical equipment within the secure

telecommunications equipment rooms located on the Metro network. Timescales were set for remediation work varying from 7th June to 7th October 2010. Good progress has been made in discharging these Improvement Notices with one already completed. Nexus is confident that remedial works will result in successful discharge of the other three, albeit the timescale for one has been slightly extended to 7th December 2010 owing to insufficient information being available at the time of issue.

- 3.4 Senior members of Nexus management team will be present to help report progress as will the Managing Director of DB Regio Tyne and Wear.
- 4 Contact Officer (s)
- 4.1 Ken Mackay, Director of Rail & Infrastructure, Nexus (Tel: 0191 203 3241)



ITA Metro Sub-Committee

Metro Operating Concession Report

Periods 1 – 4

1. Executive Summary:

- In summary overall performance since the start of the Concession has been good in most areas given that this is only the 4th period since the start of the Concession and the quality of the service provided to the customer both operationally and in terms of quality has improved over the same quarter last year This is reflected in the latest Customer Satisfaction Survey results which showed significant improvement over the previous survey
- The main highlights in the quarter were the completion of the 100 day clean up to stations and trains. In addition the first revenue generating marketing campaign is underway. Provisional results would suggest significant uplift in income in target groups. The first metro car has been transported to Wabtec for refurbishment. The first stage of the My Metro staff training has been completed with 83.6% of employees attending and a Stakeholder Engagement Officer has been recruited.
- An area of some concern is that the Operational Performance Regime (OPR) will not go "live" as planned in Period 4. The first 3 periods operated, as planned, under "wooden dollars "while both parties geared up to the switch from the previous punctuality/reliability regime to a headway based regime .The first and last train part of the regime will go live but payments under the daily and periodic regimes will be capped according to performance compared to last year while our consultants recode bank holidays in Trainlog to reflect the Concession Agreement. Once complete further work will be required to understand why penalties which the system is generating are higher than DBTW forecast.
- The next most significant concern is that DBTW have failed so far to meet the Committed Obligation to provide 18 staff on evening services. Failure has occurred on odd days rather than systematically. Action has been taken in accordance with the Concession Agreement. It is expected that this will be fully resolved following a staff reorganisation by DBTW this autumn.
- Financially both Nexus and DBTW are on course to achieve their respective budgets for running the Concession. However the downturn in the economy has impacted on non fare income which remains a risk to DBTW in achieving their targets
- Upcoming possessions and blockades remain biggest risk in delivering overall 2010/11
 revenue budget. To mitigate the risk of revenue lost during possessions we are working
 closely with DBTW to ensure that appropriate information is provided together with well
 planned bus replacements to ensure customers have an attractive option to remain with
 Metro
- Over the next quarter a Consultation meeting on the Ticketing and Gating project will have taken place, planning for blockades will have commenced and a joint stakeholder meeting between Nexus and DBTW will have taken place to ensure all the arrangements for the Great North Run have been covered and the Plan will have been finalised.
- In addition revised car park charges will be introduced six months later than planned. A proposal for higher charges and at more stations has been refused.

1.1 Changes to the Business Case

Business case unchanged

1.2 Decision required from this board/committee

No decisions required

	Status	Trend	Comments/Reasons
Operational Performance Regime- (Excess Waiting Time)	Amber	•	In Period 4 the total Excess waiting time was 15.03 minutes. This reflects the amount extra time passengers have had to wait above the benchmark that has been set. The average over the last 4 periods was 15.99 minutes. While there have only been 4 periods the trend is downwards. However the cost to DBTW has been significantly higher than anticipated and this is RED from their perspective. The cause is being investigated. Overall the new performance regime is tougher than previously and difficult to compare directly. All parties agree that performance over the last 4 periods has been better than the same period last year.
Service Quality Regime – Stations (Failures against budget)	Green	^	The total number of fails at stations has seen a steady decline since the commencement of the Concession. The average number of failures over the first 4 periods stands at 278 .The actual number of failures for Period 4 was 231. DBTW's projection of 134 fails in period 4 was significantly lower than what they actually achieved and this item is RED from their perspective.
Service Quality Regime – Trains (Failures against budget)	Green	↑	Despite DBTW's projection of 180 fails in period 4 an actual failure rate of 93 was recorded which was marginally higher than the previous period (+4). The total number of fails on trains has seen a steady decline since the commencement of the Concession with the average per period standing at 112 over the first 4 periods.
Fleet – Ave km per fault	Amber	•	The inclusion of Signal and Telecommunications faults for the first time in Period 4 has skewed the results. (3797 compared to 17,308) The average for P1 to 4 was 13,468 The results have not been available to date as Nexus have been undertaking this work on a short term basis on behalf of DBTW while their technicians are trained. True comparison will be available next period
Fraud Rate —compared to target	Amber	•	Rate achieved in P4 was 0.2% above target (4.5%) but this was a significant decline on last period's very good performance (3.8%). The average achieved for P1 -4 was 4.4%

Head Count	Amber	(-)	Numbers (497.2) are lower than target (519.1) and will be closely monitored at HR meeting to ensure key vacancies are being filled. Recruitment has been completed for some of these vacancies with staff due to start in P5. However current headcount is greater than average for P1-4 of 495.9
Overall Income	Green	^	Overall income for P4 was 8.2% over budget and the YTD results show income as 4.5 5 over budget

OPR measures the performance of the metro based on the headway between trains.

There are 3 measures:-

- A Periodic headway regime measuring the period performance as a whole.
- A Daily headway regime- measuring the regime on a daily basis to ensure the operator works hard to perform each day.
- A First and Last trains regime To ensure all first and last trains leave punctually
 which was seen as an important element to ensure the maximum amount of time is
 available for Nexus Rail's activities

Financial deductions are based on the excess waiting time figure, this shows how much longer passengers wait for a train compared to what we would expect them to wait based on the frequency of the service. It encourages the operator to run an even service at times of disruption.

The SQR seeks to maintain a high quality of stations and trains.

There are two main measures namely:-

- The station regime surveys each station on the network each period on a pass fail
 basis against a series of KPI's. The KPI's are prioritised with more important elements
 having higher penalties. A ratchet mechanism is also used to ensure that items are
 resolved. Where a station passes all KPI measures it will be awarded a bonus.
- The train regime measures 45 Metro cars each period and the results are extrapolated to reflect the whole fleet. As with stations a pass or fail is awarded for each KPI. KPI's are again prioritised.

APPENDIX 2



Nexus Rail

Business Reporting Pack

Period 4 2010/11

1. Executive Summary - Period 4

Overall a very positive period for Nexus Rail across all aspects of the business.

On safety all reportable KPIs posted zero events for the second consecutive period. Particularly pleasing was another period free from Staff Accident RIDDORs. To the end of P4 this takes the RIDDOR free total to 106 days.

The performance of Nexus Rail using the new Excess Headway measure was again strong. The new reports developed by the HOPP together with the new Performance Management Group should add further benefits moving forward.

On station facilities whilst the stations KPIs present an acceptable set of results the longevity of the loss of these facilities has become apparent due to an incident. This has resulted in a changed approach where any similar circumstances within these results in future will be listed in this report.

Financially we have maintained our strong start and there are no risks emerging on the overall forecast.

Moving forward, in addition to continuing the positive results, the focus will be on developing targets around the KPIs that to date have been absent from these. The establishment of targets will then allow our "Red Book" bonus proposals to be tabled.

2. Safety

2.1 Rail Break

Rail Break														
Period	1	2	3	4	5	6	7	8	9	10	11	12	13	Year End
Actuals	0	1	0	0										
Provision	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Cumulativ e	0	1	1	1										
Forecast														2

2.2 Rail Buckle

Rail Buckle	е													
Period	1	2	3	4	5	6	7	8	9	10	11	12	13	Year End
Actuals	0	1	0	0										
Provision	0	1	0	1	0	0	0	0	0	0	0	0	0	2
Cumulativ e	0	1	1	1										
Forecast														2

2.3 Wrong Side Failures

Wrong Sid	e Failu	ires												
Period	1	2	3	4	5	6	7	8	9	10	11	12	13	Year End
Actuals	0	0	0	0										
Provision	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumulativ e	0	0	0	0										
Forecast														0

2.4 Staff Accidents - RIDDOR Reportable

To the end of Period 4 this meant we had no RIDDOR reportable Nexus Rail staff accidents for a period of 106 days (the mean time between these events last year whilst difficult to firmly establish due to the flux within the business was around 45 days).

Staff Acci	dents -	RIDDO	OR Rep	ortabl	е									
Period	1	2	3	4	5	6	7	8	9	10	11	12	13	Year End
Actuals	1	0	0	0										
Provision	1	0	1	1	1	0	1	1	0	1	1	1	1	10
Cumulativ e	1	1	1	1										
Forecast														10

3. Performance

3.1 Overview

	Nexus Rail	DB T&W	Network Rail	Other	Total
Excess Headway (mins)	1610.25	10870.41	1363.17	586.13	17009.67
No of Cancelled Services					
Number of Faults / Incidents	40	225	33	41	339

The above total includes 2579.71 Excess Headway minutes not attributed.

Based on the figures above Period 4 is the best period thus far with both Nexus Rail and DBTW performing strongly. The strong performance is best illustrated by the Period 4 PPM+ figure (not published as part of this report) being 97%. Aimed at strengthening our performance management process the HOPP has now produced the first period reporting pack. This new pack will be used as the main tool in driving forward the new Performance Management Group meeting.

In regards to the top three trends to emerge this year (as causal factors) these are OHL, track circuits and track defects.

3.2 Summary of Major Incidents

Date	Category	Location	Excess Headway	Incident Details	Cause Summary
27th June 2010	Engineering Track	Howdon	167.72	Level Crossing Obstruction	Car collided with Train 124 on Howdon Crossing. North Tyneside CCTV Room confirmed cause was Driver Error.
05th July 2010	Signalling & Telecommunications	South Gosforth	123.39	Track Circuit Failure	Track Circuit and Signalling Failure in South Gosforth Area due to a blown 110v fuse.
07th July 2010	Signalling & Telecommunications	South Gosforth Control Centre	177.45	PTI Processor Failure	Central Processor slowed down then failed between 16.31 and 16.57. Both servers restarted.
09th July 2010	Engineering Track	St James	114.32	4022 Points Failure	4022 Points failed resulting in service suspension between St. James and monument. New Points motor fitted.
13th July 2010	Signalling & Telecommunications	System Wide	142.11	PTI System Crashing	TDM 1 Fault and TDM 2 Fault received from South Shields, resulting in no trains being recored.
17th July 2010	Engineering Track	Central Area Tunnel	320.72	Service Suspension due to Tresspasser on Track	Police requested temporary service suspension.

4. Planning and Productivity

4.1 Maximo Inspection and Maintenance

Maximo Inspec	Maximo Inspections and Maintenance								
	Inspe	ctions	PN	Λ's	Total				
	Planned	Actual	Planned	Actual	Planned	Actual			
RIE	106	103	767	666	873	769			
BFE	23	23	397	411	420	434			
NR Total	129	126	1164	1077	1293	1203			

4.2 Maximo Work Arising/Unplanned

Maximo Inspections and Maintenance							
	Work Arising	Unplanned	Total				
RIE	60	542	602				
BFE	1165	821	1986				
NR Total	1225	1363	2588				

Similar to previous periods the reduced actual PMs within RIE relate to work deferred as a consequence of the focus on improving the condition of Telecoms Equipment Rooms in line with the RI's improvement notices.

Absence

Nexus Rail All Grades

	Av. FTE	Days Lost	Days/FTE	YTD Days per FTE	%age working days lost
Period 1	221.12	204	0.92	0.92	5.29
Period 2	216.91	200	0.92	1.84	5.29
Period 3	215.91	216	1.00	2.84	5.74
Period 4	216.61	214	0.99	3.69	5.66

Absence continues at a rate in excess of 5% with this period being 5.66%. At the end of Period 4 a total of 6 people were off on LTS (Long Term Sick). It is expected that some movement will take place resulting in an estimated LTS of 2 around the end of Period 5.

5 Passenger Facilities

5.1 Key Facilities Out of Action for 24 Hours or More

Facility	Number
LLPA	4
PID	0
CCTV	4
Lifts	0
Escalator	0

On LLPA this figure (4) is an improvement of 1 on the previous period and none of these were defective and OOU at the period end.

On CCTV the figure of 4 is the same as last period. One station (Meadowell) was still OOU at the period end but has subsequently been rectified. This example at Meadowell has now driven a change to how this report is used and in future all key facilities that are out of use at the period end will be mentioned in the commentary together with when the rectification is planned for.

5.2 Availability of Ticket Machines and Help Points

Facility	%
Ticket	
Machine	
S	99.93
Help	
Points	100

Ticket machine availability remained high and improved 0.2% from the previous period.

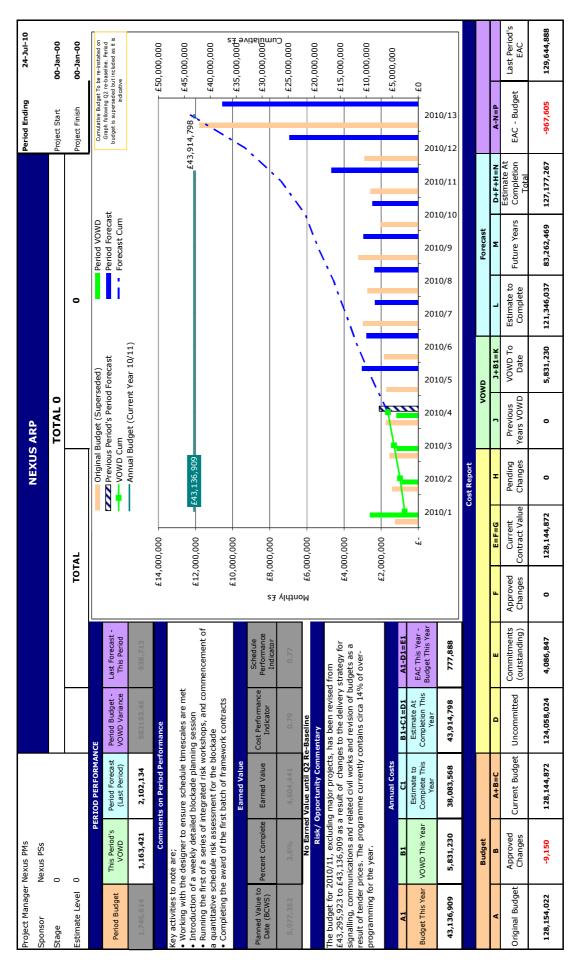
Help point data has proved challenging to gather and these results are based on a random sampling of the first 5 audited (similar to the SQR) within each period. As a consequence the sensitivity of this KPI contains a "health warning".

APPENDIX 3

ITA Metro Sub-Committee

Metro Asset Renewal Plan

First Quarterly Report



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		BUDGET		COSTS		FORECAST			AN	ANNUAL FIGURES	S	
ID + Description	May Current Budget	Approved Changes - Out-turn Review + CAFs	Current Budget	VOWD to Date	Estimate to Complete	Estimate At Completion Total	EAC - Budget	Budget This Year	VOWD This Year	Estimate to Complete This Year	Estimate At Completion This Year	EAC This Year - Budget This Year
TOTAL	£128,154,022	-£9,150	£128,144,872	£5,831,230	£121,346,037	£127,177,267	-£967,605	43,136,909	5,831,230	38,083,568	43,914,798	777,888
01-Civils	£22,637,431	£1,528,582	£24,166,013	1,384,339	24,169,663	25,554,002	1,387,989	£10,836,256	1,384,339	11,497,669	12,882,008	2,045,752
02-Permanent Way	£31,108,979	£136,362	£31,245,341	556,656	28,802,330	29,358,986 -	1,886,355	£10,338,437	556,656	8,935,470	9,492,126	- 846,311
03-OLE	03	03	£0	•	-	1	'	£0	-	-	-	1
04-Stations Framework	£19,044,359	£3,998	£19,048,357	38,471	19,082,031	19,120,502	72,145	£3,942,830	38,471	3,680,041	3,718,512	- 224,318
05-Communications	£5,686,013	£33,003	£5,719,016	147,007	5,850,392	5,997,399	278,383	£814,468	147,007	1,136,929	1,283,936	469,468
06-Signalling	£13,405,544	£23,003	£13,428,547	439,401	13,012,964	13,452,365	23,818	£3,936,690	439,401	4,782,524	5,221,925	1,285,235
07-Level Crossing	£1,984,971	£121,898	£2,106,869	9,408	2,104,196	2,113,604	6,735	£163,146	9,408	166,064	175,472	12,326
08-Depot Equipment	£3,790,677	-£0	£3,790,677	10,783	3,432,721	3,443,504 -	347,173	£2,640,902	10,783	164,252	175,035	- 2,465,867
09-Plant	£2,687,458	-£0	£2,687,458	-	2,688,208	2,688,208	750	£400,483	-	400,484	400,484	
10-M&E	£8,545,014	-£43,994	£8,501,020	537,112	7,948,776	8,485,888 -	15,133	£1,683,000	537,112	1,789,669	2,326,781	643,781
11-Power	£1,815,573	£1	£1,815,574	37,231	1,774,010	1,811,241 -	4,333	£943,697	37,231	766,707	803,938	- 139,759
12-Misc.	£14,858,003	-£13,474,003	£1,384,000	118,187	1,184,696	1,302,883 -	81,117	£1,184,000	118,187	983,711	1,101,898	- 82,102
13-Other Non-Project Costs		£0	£0	•	-	ı	1	£0	-	-	-	1
14-Capital Maintenance	£2,590,000	-£2,590,000	£0	-	-	1	1	£0	-	-	-	1
15-Capital Slippage		£0	£0	•	-	1	1	£0	-	-	-	1
16-PM Costs		£0	£0	•	-	1	1	£0	-	-	-	1
17-Metro Cars		£14,252,000	£14,252,000	2,552,635	11,296,050	13,848,685	403,315	£6,253,000	2,552,635	3,780,048	6,332,683	79,683



Tyne and Wear Integrated Transport Authority Metro Sub Committee

DATE: Date: 8th September 2010

TITLE: REVIEWING THE OUTPUTS OF PROJECT ORPHEUS

REPORT OF **DIRECTOR GENERAL OF NEXUS**

Not Confidential

All Tyne & Wear

1. Summary / Purpose of Report

1.1 To remind and advise Members on the outcomes of Project Orpheus and to seek approval to refresh and update this Project in order to inform the development of a long term strategy for Metro.

2. Recommendations

- 2.1 The Metro Sub-Committee is recommended to:
 - (a) approve a refresh and update of the Project Orpheus;
 - (b) if approved, advise the Tyne and Wear Authorities of the intention to commence this work to assist in the development of a long term strategy for Metro.

3. Introduction / Background

- 3.1 Project Orpheus commenced in early 2002 with the objective of examining options to extend the catchment of Metro through the introduction of a network of tram alignments and services. The justification for this was set out in the Passenger Transport Authority's long-term strategy document 'Towards 2016.
- 3.2 A specialist team of external consultants (covering finance, transport planning, and technical engineering) were commissioned to lead on the Project supported by a team of relevant Nexus staff. The Project was broken down into 29 key

travel corridors across Tyne & Wear. Corridors were examined in logical groupings through establishment of a Corridor Working Groups with membership from Local Authority officers and the bus operators. Over the life of the Project a sifting process was employed that examined

- the potential demand for travel on each corridor based on known travel and envisaged new travel generation (from changes in land use)
- the best deliverable technical solution (tram, bus or rail)
- and the likely income generation, operational cost, and capital costs of each preferred option.

This sifting of options resulted in low cost solutions (e.g. on highway bus priority – Superoute) being recommended on some corridors early in the sifting process whereas for others the sifting process continued towards appraising more costly but more beneficial segregated bus or tram (Metro extension) solutions, where travel patterns and demand justified this investment.

4. Orpheus Recommendations – Light Rail Corridors

- 4.1 During the period 2002 to 2004 the ITA received a number of update reports on Project Orpheus culminating in a report in August 2004 seeking agreement on a way forward.
- Work to that point had identified that of the 29 corridors examined within the Project the following solutions were recommended;
 - 3 corridors where heavy rail enhancement was appropriate
 - 6 segregated bus corridors
 - 8 tram or light rail (Metro extensions)
 - 11 Superoute enhancements

The full list of recommendations is shown at Appendix 1.

- 4.3 The 8 potential light rail corridors are listed below (route numbers are Orpheus reference numbers they do not signify any priority).
 - Route 21 Newcastle Denton with extensions to Walbottle and MetroCentre
 - Route 28 Newcastle Walker
 - Route 23 Four Lane Ends Metro Cramlington
 - Route 1 Sunderland Seaham via the coast
 - Route 2 Sunderland Ryhope via Doxford Park
 - Route 9 Gateshead Team Valley
 - Route 12 South Shields Sunderland via Boldon
 - Route19 MetroCentre Gateshead (linking with possible extension to Route 21 in west Newcastle)

For each route detailed alignments were developed, indicative costs established and economic evaluation undertaken.

- This detailed study of each corridor revealed that, whilst in most cases a positive cost benefit ratio could be achieved in the longer term, for the short term the ITA was recommended not to progress any new light rail schemes beyond that achieved in Project Orpheus to date. At that time (Autumn 2004) there was a very challenging attitude from Government to light rail schemes as transport solutions (lower cost bus based schemes becoming the more favourable solution) and the Government was seeking very positive benefit to costs ratios for light rail schemes BCRs that was significantly higher than had been identified within Project Orpheus for potential LRT corridors in Tyne & Wear.
- 4.5 It was recognised however that over time new LRT could be deliverable in Tyne & Wear as congestion, demand management solutions and regeneration measures improved the relative attractiveness of public transport.
- 4.6 Given these issues, that made the progression of new LRT difficult at that time, the ITA in August 2004 endorsed a 2-phase approach to Orpheus implementation:
 - the first phase (first 10 years) focusing on Metro reinvigoration and significant bus based enhancements, and
 - the second phase (next 10 years) focusing on completing reinvigoration and commencing LRT implementation.

5. **Next Steps**

Now that funding has been secured for Metro reinvigoration and work is underway on Metro asset renewal it is an appropriate time to examine and refresh work undertaken with Project Orpheus. A refresh will ensure plans are in place to extend the scope of the Metro network across Tyne & Wear once the financial and economic climate changes and LRT schemes offering good value for money become deliverable.

6. Further comments by the:

- Clerk (if any);
- Treasurer (if any);
- Legal Advisor (if any);
- Director General (if any).

7 Background Papers

7.1

- 8 Contact Officer (s)
- 8.1 Bernard Garner, Director General

SUMMARY OF RECOMMENDATIONS FOR ORPHEUS CORRIDORS AS AT SUMMER 2004

Area	Corridors within Area	Recommended Way Forward
A) Sunderland urban area	1 Sunderland-Seaham via coast	Tram or light rail (Metro extensions)
	2 Sunderland-Ryhope via Doxford Park	Tram or light rail (Metro extensions)
	3 Sunderland-Seaham via Houghton	Superoute
B) Sunderland – Washington corridor	4 Sunderland-Washington via Doxford Park	Tram or light rail (Metro extensions) Sunderland to Doxford Park (corridor 2). Superoute for other links
	5 Sunderland - South Hylton- Washington	Retain option for rail link to (possible) reopened Leamside rail line
	6 Sunderland-Southwick – Washington	Segregated Bus Corridor (with link through to Route 8 in Gateshead)
C) Washington area	7 Washington- Chester-le-Street	Superoute
D) Washington – Gateshead/ Newcastle corridor	8 Washington- Gateshead via Wrekenton	Segregated Bus Corridor (with link through to Route 6 in Sunderland)
	9 Washington Gateshead via Team Valley	Tram or light rail (Metro extensions) from Gateshead to Team Valley
	10 Washington-Gateshead via Pelaw	Segregated Bus Corridor
	11 Washington-Gateshead via Usworth	Superoute
E) South Shields interurban corridors	15 South Shields-Washington	Segregated Bus Corridor (build upon recommendations of Coalfields Job Link study)
	12 South Shields-Sunderland via Boldon	Tram or light rail (Metro extensions)
F) South Shields urban area	13 South Shields-Marsden	Superoute
	14 West Harton-Marsden	Superoute
G) Rural Gateshead to Gateshead/ Newcastle	16 Stanley – Metro Centre	Superoute
	17 Rowlands Gill-Metro Centre	Superoute
	18 Prudhoe-Gateshead	Rail enhancements on Tyne Valley Line
H) Western Gateshead urban area	19 Metro Centre Gateshead	Tram or light rail (Metro extensions) with possibility link across Tyne to route 21.
I) Outer Newcastle	20 Metro Centre –Airport	Superoute
J) Inner Newcastle	21 Newcastle –Denton	Tram or light rail (Metro extensions) to Walbottle or possibly MetroCentre
	28 Walker area	Tram or light rail (Metro extensions)
	29 Link between 28 and 23	Superoute
K) Newcastle Great North Park Routes	22 Newcastle – Airport via Newcastle Great North Park	Segregated Bus Corridor
	24 Airport-North Shields	Superoute
L) Cramlington/Killingworth area to Newcastle	23 Four Lane Ends – Cramlington	Tram or light rail (Metro extensions)

nington-Newcastle passenger service on	Blyth & Tyne line
phenson's Link Segregated Bus Corri	idor
vcastle-Whitley Bay Superoute	
	phenson's Link Segregated Bus Corr

Summary of 29 Corridors

8 Tram or light rail (Metro Extensions) Corridors 1/2/9/12/19/21/28/23

6 Segregated Bus Corridor 6/8/10/15/22/26

12 Superoute 3/4/7/11/13/14/16/17/20/29/24/27

3 Rail development 5/18/25